

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-10. (canceled).

11. (new): A sequence controller comprising a controller and a plurality of controlled devices that are connected in series to the controller, wherein

the controller includes

a first transmitting unit that transmits a first identification code provision start signal to all the controlled devices to simultaneously notify that provision of the identification code is started; and

a second transmitting unit that transmits to a controlled device that is the first in the series a second identification code provision start signal to notify that provision of the identification code is started and an identification code provision end signal to notify that the provision of the identification code ends, and

each of the controlled devices includes

an identification code provision timing detecting unit that detects the first identification code provision start signal, the second identification code provision start signal, and the identification code provision end signal;

an identification code providing unit that provides a predetermined number of identification codes to the controlled device on the basis of a header identification code that is determined by timings of the first identification code provision start signal and the second identification code provision start signal; and

a third transmitting unit that transmits the second identification code provision start signal and the identification code provision end signal to a subsequent controlled device in the series.

Preliminary Amendment

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12. (new): The sequence controller according to claim 11, wherein
the first transmitting unit and the second transmitting unit adjust timing to transmit the first identification code provision start signal and the second identification code provision start signal respectively.

13. (new): The sequence controller according to claim 12, wherein
the first transmitting unit transmits the first identification code provision start signal after the second transmitting unit transmits the second identification code provision start signal.

14. (new): The sequence controller according to claim 12, wherein
the second transmitting unit transmits the second identification code provision start signal after the first transmitting unit transmits the first identification code provision start signal.

15. (new): The sequence controller according to claim 11, wherein
the controller further includes a clock unit that counts a predetermined time that is a time required to provide identification codes to all the controlled devices, and
the second transmitting unit transmits the identification code provision end signal when time counted by the clock unit is equal to the predetermined time.

16. (new): The sequence controller according to claim 11, wherein
the identification code providing unit ends providing the identification code upon receiving the identification code provision end signal, and
the third transmitting unit transmits the identification code provision end signal to an immediately subsequent controlled device in the series immediately after receiving the identification code provision end signal.

17. (new): The sequence controller according to claim 11, wherein
the third transmitting unit transmits the second identification code provision start signal that is delayed by a time determined by the predetermined number of identification codes.

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18. (new): The sequence controller according to claim 17, wherein the identification code providing unit provides the predetermined number of identification codes when the third transmitting unit transmits the second identification code provision start signal.

19. (new): The sequence controller according to claim 11, wherein the third transmitting unit transmits the identification code provision end signal when the identification code provision timing detecting unit detects noise after detecting the first identification code provision start signal and the second identification code provision start signal.

20. (new): The sequence controller according to claim 11, wherein the controlled devices are connected to the controller via a first path dedicated for data transmission and are connected in series to the controller via a second path, wherein

the first transmitting unit transmits the first identification code provision start signal to the controlled devices via the first path, and

the second transmitting unit and the third transmitting unit transmit the second identification code provision start signal and the identification code provision end signal to the controlled devices via the second path.